VRD 3004/8 Digital Surveillance System

User's Manual

CDV-L2.1

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Accessories

Check the accessories accompany with the system you purchase as listed below. Contact the dealer you bought from if any of them is missing.

- VRD 3004/8 System
- Cable set X 3 for main system
- Power Cord
- Screws Pack
- Remote Controller
- Battery (AAA) X 2
- User's Manual
- Installation CD-ROM

Please keep the packaging materials. You may need them for the use of further service.

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1 INTRODUCTION

Thank you for purchasing VRD 3004/8; this manual will guide you through the setup, installation, and use of all our VRD systems.

Before proceeding, please read this manual thoroughly!

If you have any questions or concerns that cannot be solved by following this manual, please visit our web site at http://www.cdvitalia.it

Limited Warranty

CDVItalia warrants this product to be in compliance with its own plans and specifications. Moreover, to be free from defects in materials and workmanship under normal use and service for all parts (1) one year after the original purchase date. During this period CDVItalia will replace parts at no charge, however, labor cost will be laid after one (1) year. Please contact your dealer/distributor for details.

This warranty excludes damages due to misuse or neglect. Also this warranty does not cover damages beyond VRD's control. In no event shall CDVitalia. be liable for any direct, indirect or consequential damages; loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation, operation or failure of this product. For more details on the limitation of this warranty, contact your distributor.

1.1 FUNCTION INTRODUCTION

Thank you for using VRD 3004/8 video surveillance system. VRD can be used to transfer captured video signal from analog to digital using the compression format for record and play. They can also capture videos of up to 4 / 8 cameras for model VRD-3004, and VRD-3008 (4 /8 BNC inputs) with 4 audio sources at the same time. The built-in video player makes it easy to play back captured video files. The system also provides several control modes like motion detection, schedule record, P/T/Z control and remote surveillance applications.

1.2 Technical Support:

You may find technical resources from CDVItalia web site; for technical issue please contact to our Technical support center with attached email address: tec-supporto@cdvitalia.it

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1.3 SOFTWARE FEATURES

- Video source: NTSC/PAL supported
- Record resolution: NTSC (640*480, 320*240) or PAL (640x480, 320*240)
- Recording mode: Continue record, schedule record, motion record and trigger record
- 4 Audio Inputs support
- Playback (search by time, date, camera and event)
- Supporting 4/8 Video Inputs
- Compression format: M-JPEG
- Motion detection
- Password protect
- Internet / Intranet remote surveillance
- Internet / Intranet remote access control
- IR remote control
- P/T/Z camera control
- Option with RCC (Remote Control Center) application software for remote retrieve.

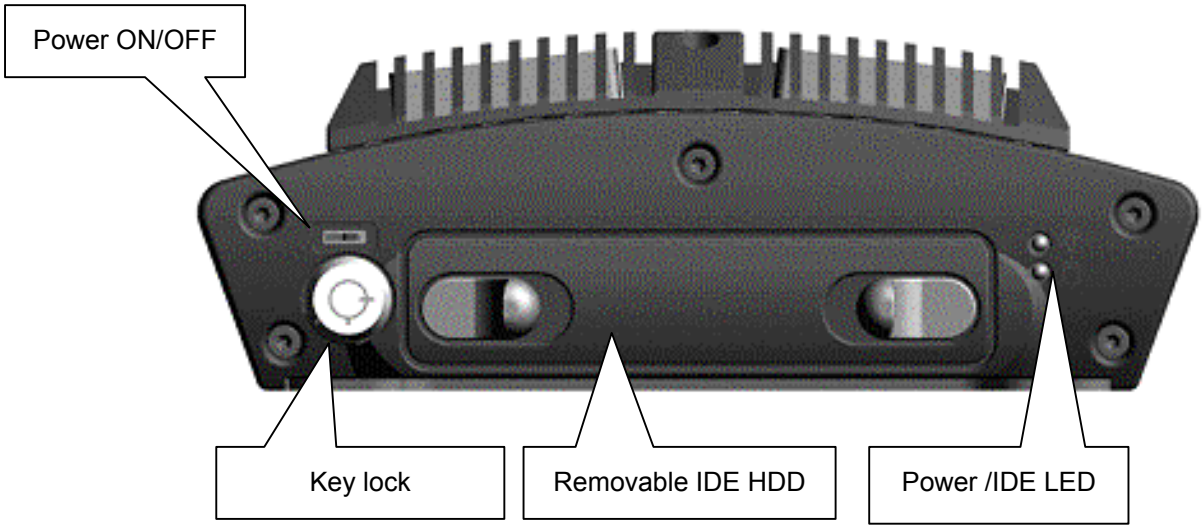
1.4 HARDWARE FEATURE

The VRD 3004/8 comes with the following hardware devices:

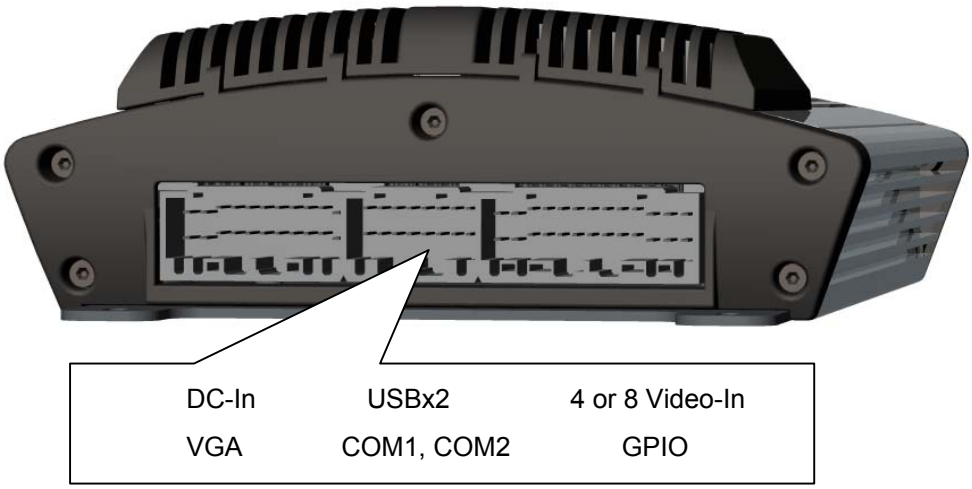
- Control panel with IR receiver
- One10/100Mbps RJ-45 Ethernet Port
- Two RS 232 ports
- One VGA Connector
- One speaker-out connector
- Two USB Ports
- One swappable 2.5” HDD Supported
- Four Audio-in Ports
- Eight GPIO Ports
- Remote Controller
- Operating temperature: 0°C ~ 40 °C
- Storage temperature: -10 ~ 65 °C
- Relative humidity: Maximum 10~90% @ 40degC, non-condensing
- Power requirement: DC 12V/5A ~ 24V/3A
- Dimension: 257mm (D) x 174mm (W) x 48mm (H)
- Weight: 3.0 kg (Including HDD)

2.0 INSTALLATION SETTING

2.1 Front Panel View



2.2 REAR PANEL VIEW



2.3 LED INDICATORS

Power LED: Green light shows power is on.

Status LED: Green light continuous on means working Properly

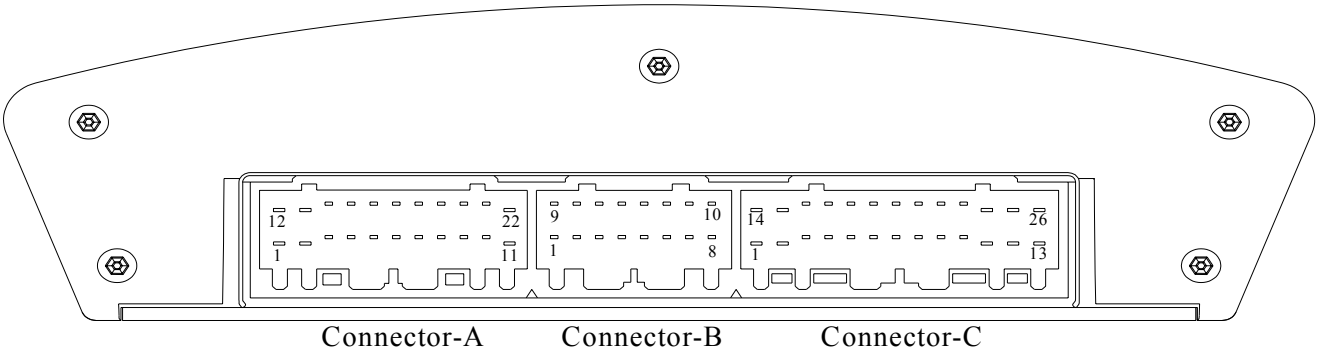
Green light blinking shows status of recording

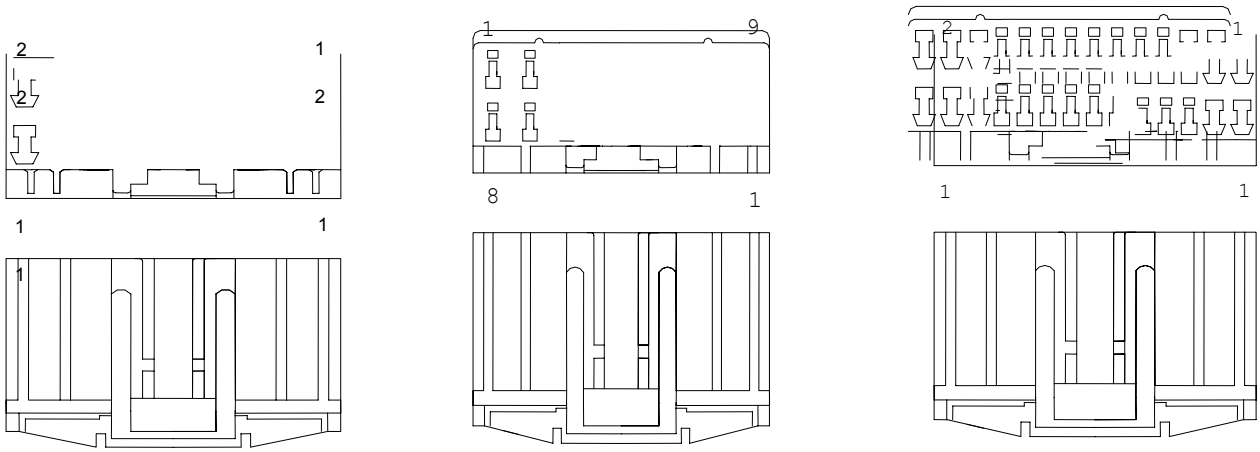
Red light continuous on means no signal (This may implies HDD damaged, No Power, or Access Error.)

Red light blinking shows status of recycling. (HDD space less than 1 Gigabyte)

2.4 External Connector

Pin assignment of Multi-Lock connector



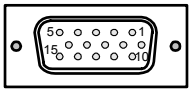


GPIO / VIDEO connectors

Pin no.	Signal	Pin no. of Connector-A
GP-1	GPIO-1	1
GP-2	GPIO-2	12
GP-3	GPIO-3	2
GP-4	GPIO-4	13
GP-5	GPIO-5	3
GP-6	GPIO-6	14
GP-7	GPIO-7	4
GP-8	GPIO-8	15
GP-9	GPIO-Ground	5
	Video IN-1	6
	Video IN-2	17
	Video IN-3	7
	Video IN-4	18
	Video IN-5	8
	Video IN-6	19
	Video IN-7	9
	Video IN-8	20
	Video -Ground	16
	Microphone IN	10
	Audio Line IN-R	11
	Audio Line IN-L	22
	Audio Ground	21

Note: GPIO is TTL compatible interface.

CRT Display Connector (VGA)



Pin no.	Signal	Pin no. of Connector-B
1	RED	5
2	GREEN	13
3	BLUE	4
4,9,11,12,15	N/C	N/C
5,6,7,8,10	GND	11
13	H-SYNC	12
14	V-SYNC	3

Audio output connector:

Audio out connector		Pin no. of Connector-B
Pin	**Name**	**Pin**
1	Audio Line OUT-R	1
2	Audio Line OUT-L	9
3	Audio GND	10

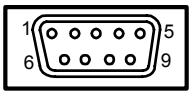
USB connector:

USB Ports		Pin no. of Connector-B
Pin	**Name**	**Pin**
2	USB0 +	6
3	USB0 -	14
4,8	GND	16
1,5	USB power	8
6	USB1 +	7
7	USB1 -	15

Composite video Out (Reserved)

Video out		Pin no. of Connector-B
Pin	**Name**	**Pin**
2	CMPS	2
1	GND	11

COM 1 Connector



RS-232 Connector (COM1)

Pin no.	RS232	Pin no. of Connector-C
1	DCD	13
2	RxD	11
3	TxD	9
4	DTR	7
5	GND	18
6	DSR	12
7	RTS	10
8	CTS	8
9	RI	6

RS-232 Connector (COM2) or LAN (RJ-45)

Pin no.	RS232	Pin no. of	LAN
1	DCD	26	ACT LED
2	RxD	24	SPD LED
3	TxD	22	TX +
4	DTR	20	RX +
5	GND	18	GND
6	DSR	25	LINK LED
7	RTS	23	VCC3
8	CTS	21	TX -
9	RI	19	RX -

Infrared (For IR receiver only):

Audio In		Pin no. of Connector-C
Pin	**Name**	**Pin**
	CIR IN	4
	IR GND	16
	IR VCC	17

Power source:

Audio Out		Pin no. of Connector-C
Pin	**Name**	**Pin**
1	Power IN	2,15
2	GND	1,14

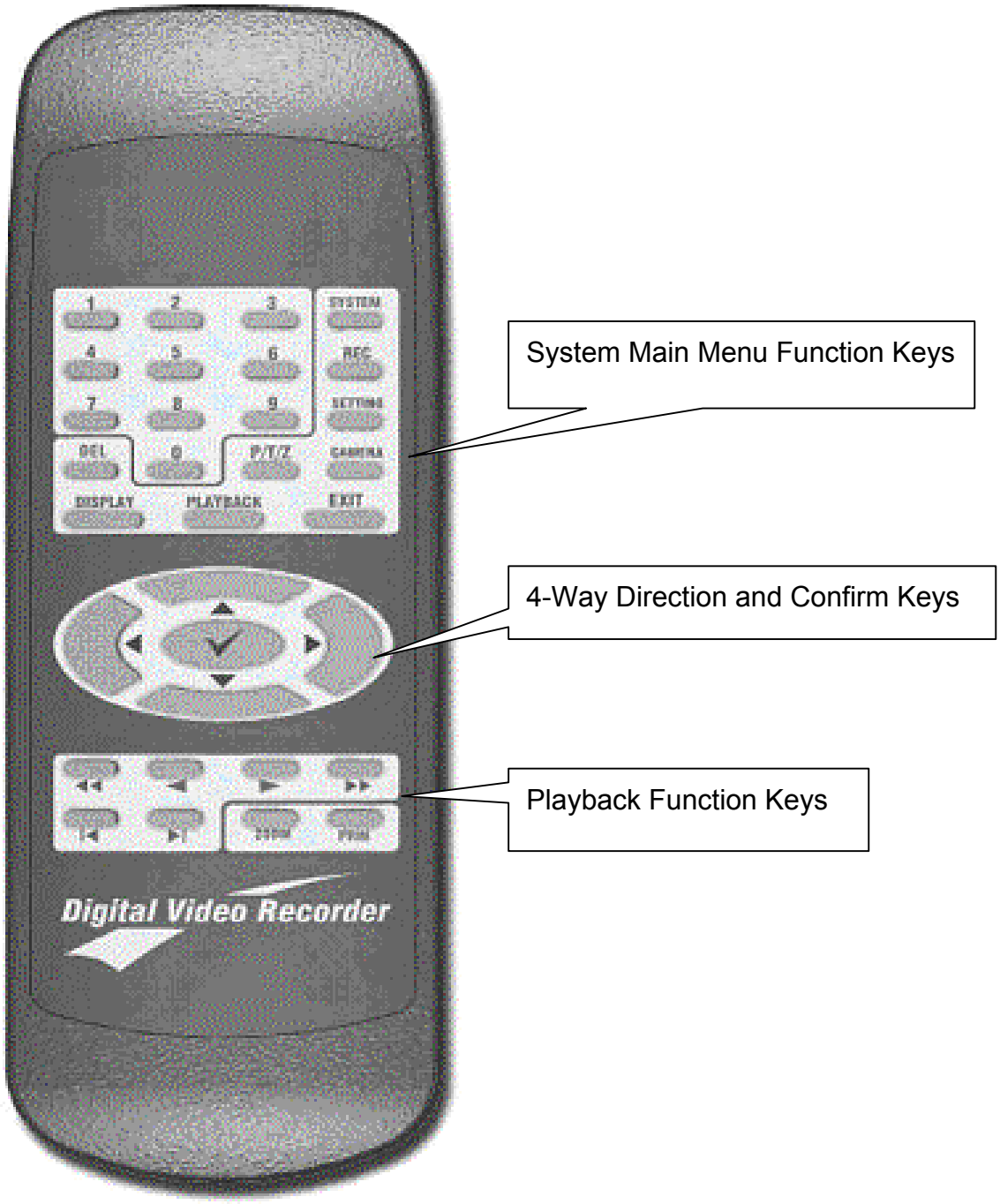
Connectors

The connectors allow this main board to connect with other parts of the system. Some problems encountered with your system may be caused by loose or improper connections. Ensure that all connectors are in place and firmly attached.

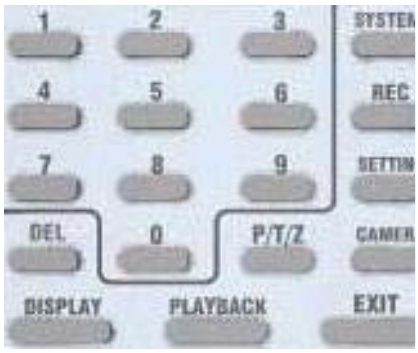
Component	Location
HDD (IDE) connector	IDE
USB connector	Connector - B
External power connector	Connector - C
Serial Port	Connector - C
Audio OUT	Connector - B
Audio IN	Connector - A
MIC	Connector - A
LAN	Connector - C
Video INPUT	Connector - A
CMOS RAM clear	J1
GPIO	Connector - A
IR	Connector - C
System FAN	FAN1
RTC battery	J2

2.5 VRD 3004/8 REMOTE COTROLLER

The commander consists of three major function panes: System Function/Directions/ Playback Function



1. System Main Menu

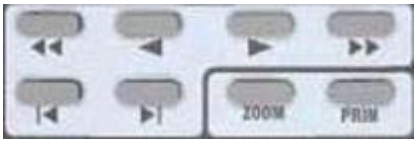


NUMBER PAD	ENTER DIGITS
SYSTEM	ENTER INTO MAIN MENU
REC	RECORDING MENU
SETTING	SYSTEM SETTING
CAMERA	CAMERA SETTING
P/T/Z	P/T/Z SETTING
DISPLAY	DISPLAY MENU
PLAYBACK	PLAYBACK MENU
EXIT	BACKWARDS

2. 4-WAY ARROW AND CONFIRM KEYS

REPRESENT CONFIRMATION

3. PLAYBACK FUNCTION KEYS



ZOOM: ENLARGE SCREEN

PRINT: PRINTER KEY

: FAST BACKWARD
X2 /X4 /X8 /X16 /X1/2 /X1/4 /X1/8

: BACKWARD DISPLAY/PAUSE

: FORWARD DISPLAY/PAUSE

: FAST FORWARD DISPLAY

X2 /X4 /X8 /X16 /X1/2 /X1/4 / X1/8

: TO THE BEGINNING

: TO THE END

3. INSTALLATION SETTING

3.1 CABLE CONNECTION

Following is the basic device must be prepared before to start installation complete system.

1. VRD 3004/8
2. CCD cameras + cable
3. VGA monitor

Please follow the procedure to connect the cable.

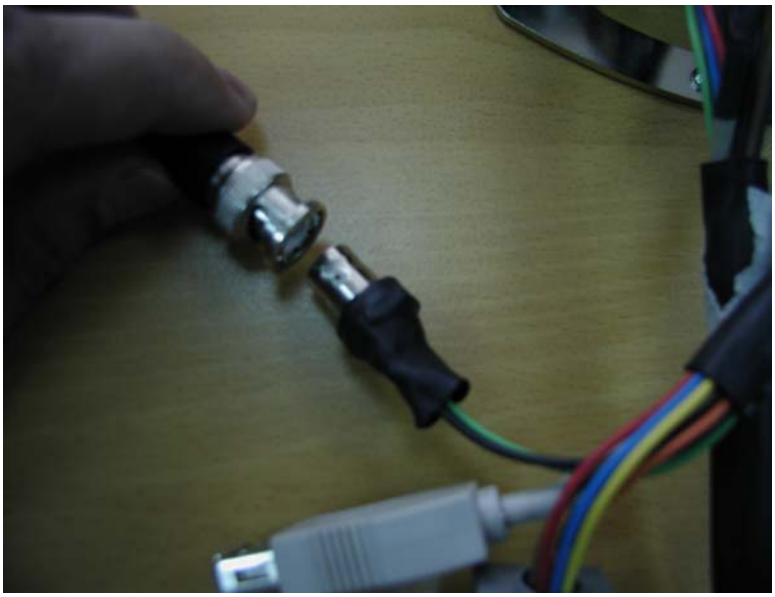
1. **Connect** all External Connector

2. **Connect Removable IDE HDD**

Prepared **Removable IDE HDD** and push into track carefully, and use key to turn lock.

3. Connect VGA Monitor

4. Connect Camera Cable to BNC connector



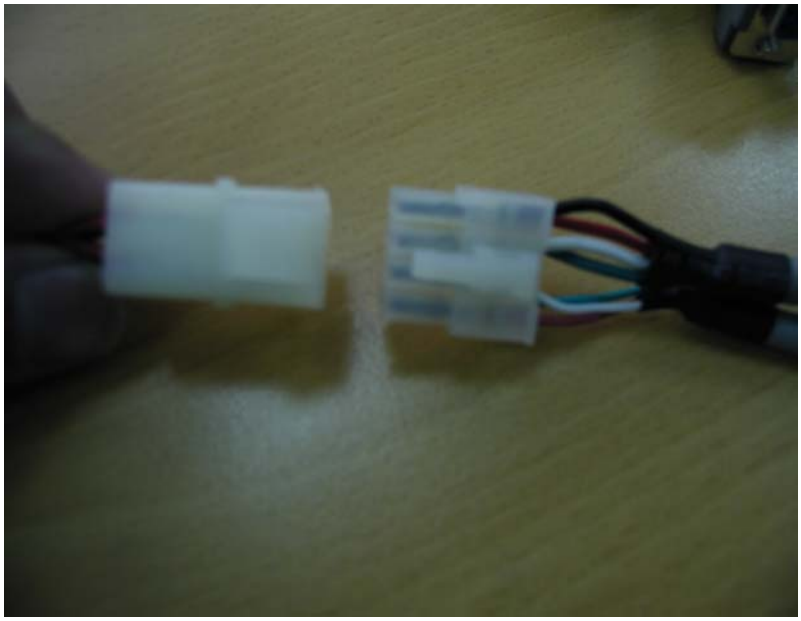
5. Connect to LAN connector: Plug RJ-45 connector to LAN Port

6. Connect To Print Port

Use USB printer and connect to VRD USB port

3.2 POWER CONNECTOR

Connect power cord (12V~24V auto switch) into the power socket.



3.3 Lock and Unlock of Front Panel Buttons:

The system locks automatically whenever booting occurs to prevent from data divulgence.
To unlock the system, you must enter authorized Passwords.
System Unlock: Pressing “Confirm Button *F6*” and entering
Authorized password to unlock system (Default initial password is 123456)
System lock: Press “Left Arrow Key”. Do not release after pressing “Confirm Key”

3.4 WARNING

3.4.1 Installation Environment
For safe operation and satisfactory performance of your unit, keep the following in mind when selecting a place for its installation:
Shield it from direct sunlight and keep it away from sources of intense heat.
Keep away from dusty or humid places
Avoid places with insufficient ventilation for proper heat dissipation. Do not block the ventilation holes on the both side of the unit.

3.4.2. Avoiding Electrical Shock and Fire

Do not handle the power cord with wet hands.

Do not pull on the power cord when disconnecting it from an AC wall outlet. Grasp it by the plug.

If any liquid is spilled on the unit, unplug the power cord immediately and have the unit Inspected by your local dealer..

Dangerous voltage constitutes a risk of electric shock present within this unit.

3.4.3. Hard disk protection

If any hard disk format errors are found when the power is turned on, the whole hard disk is checked automatically. If any further problems are found with the hard disk, the system will not boot up. Please contact your dealer/Distributor. The hard disk is very sensitive to dust, vibration and shocks. Be sure to observe the following points in order to prevent from damage.

Do not use the digital video recorder in places where it will be subjected to vibration shocks or the place where is unstable.

Do not use in places that are subject to rapid changes in temperature (changes of around 10°C in an hour).

The hard disk and cooling fan are consumables.

These parts should generally be replaced after 2 years of use (for the hard disk) or 3 years of use (for the cooling fan) at normal temperatures of 25°C.These periods of time are intended as guides only, and are not a guarantee of product performance.

4. VRD 3004/8 SYSTEM OPERATION:

4.1 SPLIT DISPLAY

The VRD 3004/8 series supports real time recording and display. A split screen with 4/8 blue squares appears after the system successfully boots up.

CAMERA 1 2 3 4 5 6 7 8
RECORD
ALARM
DISK REMAINS FOR REC 200 HOURS
RECORDING STATUS:
: SCHEDULE : CONTINUE : MOTION
ALARM STATUS:
: NC : NO : HI : LO

The above are display format of 4/8 split screen. For change the display mode, simple to press F4 on keyboard or “Display” button on IR remote commander
Camera number will appear on left top of each picture. In the middle appears the time recorded (System Time)
System Status appears on the right button indicating the system operation status. This will always appear on 8 channels mode. Press
“Confirm Key” to pop up the status window for 4 channels.

4.2 SYSTEM OPERATING STATUS

The status area shows the Video input, recording, alarm and disk information on VRD 3004/8.

- Camera on/off Status; Grey means no input signal
- Recording Status: Three different colors Red/Blue/Green indicators as

CAMERA 1 2 3 4 5 6 7 8
RECORD
ALARM
DISK REMAINS FOR REC 2 % 1 GB
RECORDING STATUS:
: SCHEDULE : CONTINUE :EVENT
ALARM STATUS:
: NC : NO : HI : LO

SCHEDULE: Scheduling recording

CONTINUE: Continuous recording

EVENT: Event recording

Alarm Status Input/Output: The system supports 8 channels of Alarm (No. 1-8). Each channel can be defined as either Input or Output. As shown below, are the recording statuses of the connection to GPIO devices.

Alarm Input Status:

NC: Red Light on shows the status is “Normal Close”

NO: Green Light on shows the status is “Normal Open

Alarm Output Status:

LO: LOW (0V)

HI : HIGH(5V)

.

Remaining Disk Capacity: Estimates how many capacity and percentages of HDD remaining

4.3 CONTROL PANEL FUNCTION BUTTON INTRODUCTION:

You can also connect keyboard via USB device to control VRD 3004/8 S/W.
There are 5 defined hot keys: ALARM, MENU, DISPLAY, PLAYBACK and CONFIRM.
The four-way button is used to control different directions (i.e. up, down, right and left)

4.3.1 THE HOT KEYS

The hot keys are defined by F2~F6 on the keyboard:

ALARM	The F2 button is for activating alarm sounds. Whenever alarm is triggered, system will shift automatically to “Continuous Recording Mode”. Pressing “Alarm button” to activate speaker” (An external speaker is required).
MENU	The F3 button is for entering advanced menu settings.
DISPLAY	The F4 button is used to display 3 modes by system default, “Split Screen”, “Full Single Screen”, and “Sequence Switching Display”.
PLAYBACK	The F5 button is for playback (a pop up window will appear to select playback options).
CONFIRM	The F6 button is to confirm.

4.3.2 FUNCTION OF CONTROL PANEL BUTTONS

ALARM: When an alarm has been triggered, the system will automatically shift to “Continuous Recording Mode”. By pressing the “F2 button”, you are activating the speakers (Please note: an external speaker is required).

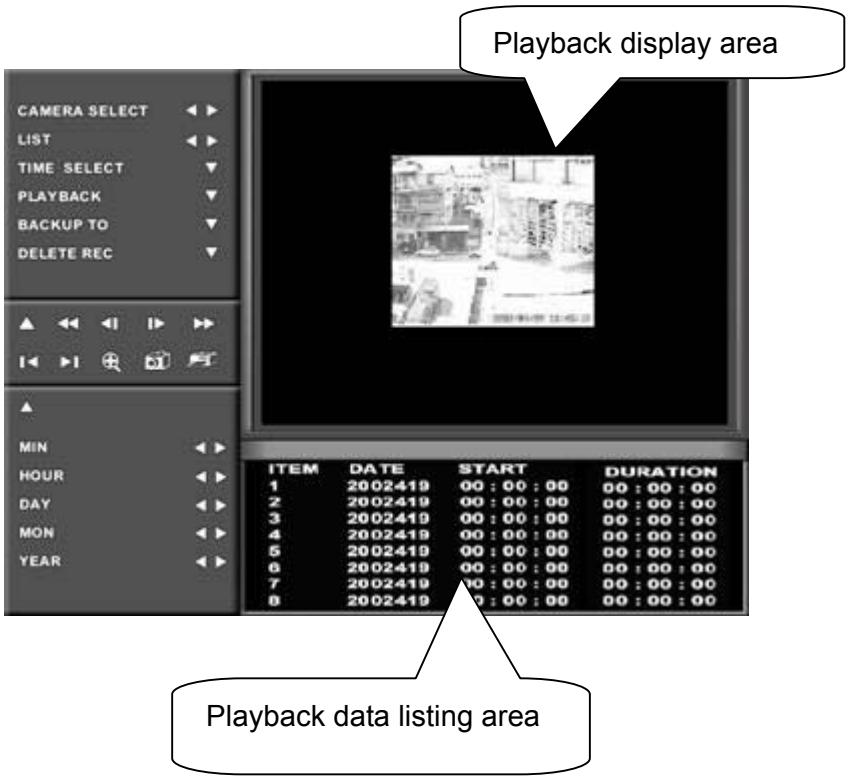
MENU: To view menu functions, press F3 from the USB keyboard or press the SYSTEMS button on your remote control. A screen will appear as shown. By using the UP/DOWN button you can highlight the selected function. Once you have selected, press” Confirm” or F6 to enter into the sub-menu screen for further settings.

Display: To display modes, press F4 or click the DISPLAY button on your remote control. This enables you to select “Split Screen”, “Full Single Screen” or “Sequence Switching Display”. It is set at “Split Screen” by default.

Full Screen Switcher Time Setting: You may adjust display time interval of Full Screen Switcher. The system default is 5 seconds. Press “MENU” → “SYSTEM SETTING” → “SWITCHER TIME SETTING”

PLAYBACK:

To utilize the playback option press F5 or the PLAYBACK button on your remote control. A pop-up screen will appear to select Playback options.



CONFIRM: To confirm press F6.

Additional functions:

In 4 inputs Playback Mode, press the “Confirm button”. A pop up screen will appear in the System Function Menu for camera No. 4

5 Main Menu Function

To view menu functions, press F3 from the USB keyboard or press the SYSTEMS button on your remote control. A screen will appear as shown. By using the UP/DOWN button you can highlight the selected function. Once you have selected, press" Confirm" or F6 to enter into the sub-menu screen for further settings.

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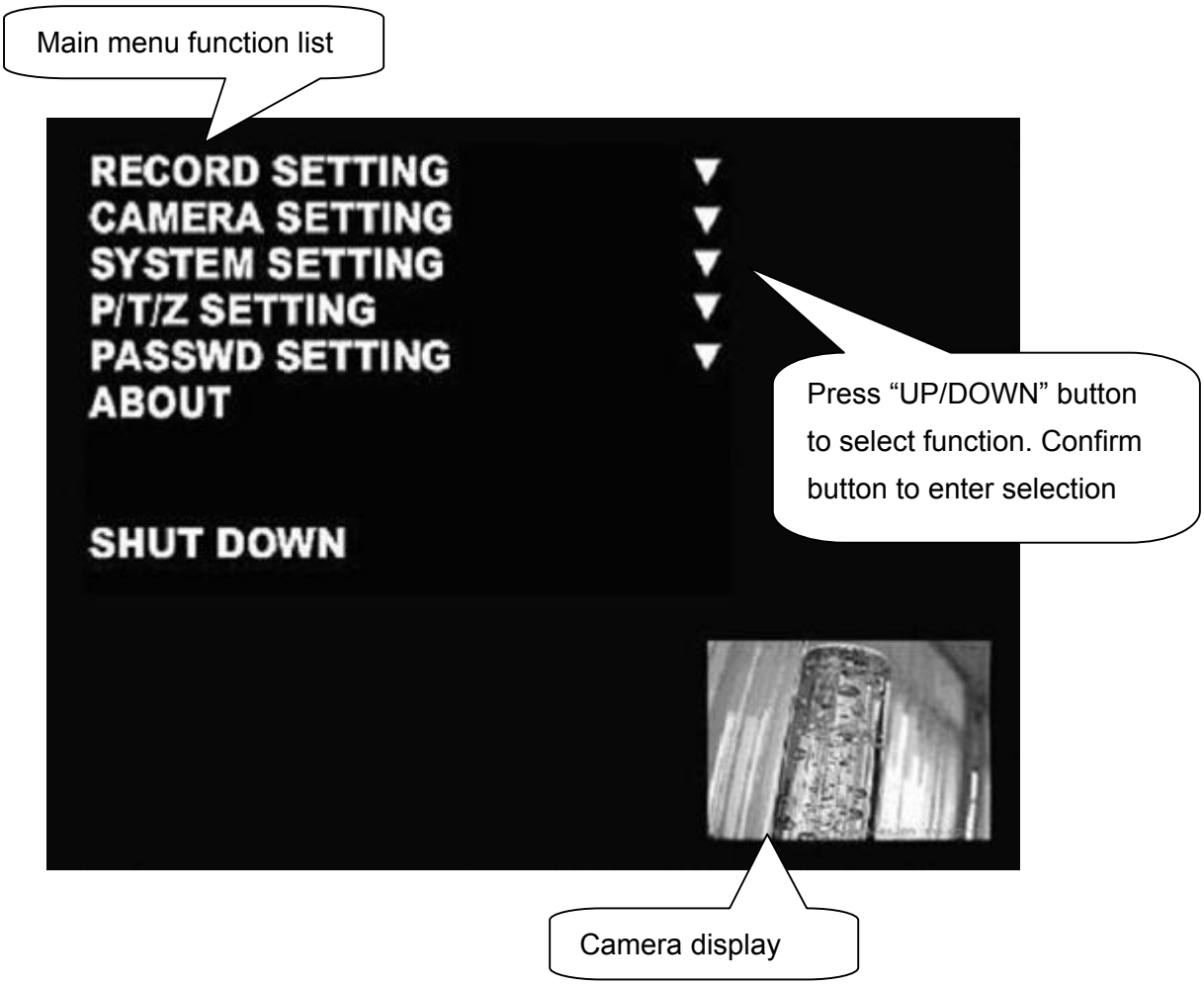


5.1 RECORDING SETTING

Press Right/ Left button to enable ✓ or disable ✗ selected function.

To record, simply press the REC button on your Remote control.

When a specific camera is being selected, the recorded view will pop up on right button corner for your reference.

5.1.1 CAMERA SELECT

Press Right/Left button to change the camera you want to select. The camera selected should be displayed at the bottom-right corner of your screen.

5.1.2 Microphone Select

Tracer series support 4 Audio inputs. Use the RIGHT button to enable the Audio recording. The enable key ✓ will not work when more than 4 Audios is being selected.

5.1.3 SCHEDULE RECORD

Press the confirm button to enter the sub-menu camera to view recording schedule.
Use the UP/DOWN button for further setting options.

5.1.3.1 CAMERA SELECT

Press LEFT/RIGHT button to select camera

5.1.3.2 ITEM SELECT

Press LEFT/RIGHT button to change the schedule items you have previously set.

Note: Schedule status window is empty if no record has been preset.

5.1.3.3 WEEK DAY

Press LEFT/RIGHT button to adjust/select the day of the week.

5.1.3.4 START

Specify the recording start time by using LEFT/RIGHT button to adjust the time interval. Each stroke adds or subtracts 1 minute.

5.1.3.5 WEEKDAY

Press LEFT/RIGHT button to adjust/select the day of the week.

Note: specifying consecutive weekday only. Multi-schedule interval shall not overlay each other.

5.1.3.6 STOP

Specifying recording end time, use LEFT/RIGHT button to adjust the time interval. Each stroke adds or subtracts 1 minute.

5.1.3.7 ADD SCHEDULE

ADD SCHEDULE: Add the schedule to the schedule list. **Remember to save by selecting the Save Schedule.**

5.1.3.8 REMOVE SCHEDULE

REMOVE SCHEDULE: Remove the selected schedule by using UP/DOWN button and LEFT/RIGHT button. Remember to save the changes by selecting Save Schedule.

5.1.3.9 MODIFY SCHEDULE

MODIFY SCHEDULE: Modify the selected schedule by using UP/DOWN button and LEFT/RIGHT button. Remember to save the changes by selecting Save Schedule.

5.1.3.10 RESTORE SCHEDULE

RESTORE SCHEDULE: Press “Restore Schedule” to recover the original settings of the record schedule. The system will not save any modifications unless you remember to press the “confirm” button in the “SAVE SCHEDULE”.

5.1.3.11 SAVE SCHEDULE

SAVE SCHEDULE: To save any modifications, select “Save Schedule” from the menu.

Note: Always remember to save your setting prior to exiting.

5.1.3.12 APPLY TO ALL

The “APPLY TO ALL” option is to apply schedule settings to all cameras.

5.1.4 CONTINUE RECORD

CAMERA 1 2 3 4 5 6 7 8
RECORD
ALARM
DISK REMAINS FOR REC 200 HOURS
RECORDING STATUS:
: SCHEDULE : CONTINUE : MOTION
ALARM STATUS:
: NC : NO : HI : LO

CONTINUE RECORD: Once you have selected a camera, press the LEFT button to enable the continuous recording function. To disable, press the RIGHT button.

5.1.5 EVENT RECORD

EVENT RECORD: Press the confirm button to enter the sub-menu of EVENT RECORD. Press the UP/DOWN button for further setting options. Remember to hit the LEFT button to activate the event record. There are two events to select motion record and alarm record.

5.1.5.1 MOTION RECORD

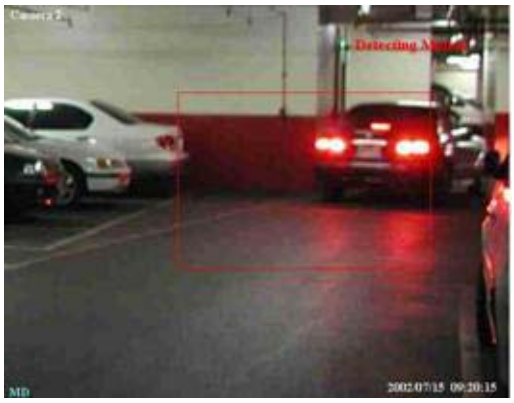
MOTION RECORD: Select the camera and highlight “Motion Record”. Once you press “Confirm” to enter into the sub-menu of Motion Record. The function is enabled, meaning all other recording modes (Schedule and Continuous) are disabled. In short, only one recording mode can be active at a time.

5.1.5.1.1 MOTION SENSITIVITY:

It basically means the level of sensitivity it detects from movements. The smaller the value is set, the more sensitive the camera is in detecting certain motion. When any moving object has been detected, track recording initiates

automatically. Because of different CCD sensors, we suggest you adjust it (default value is 35) to fit your environment, depending on your camera.

5.1.5.1.2 MOTION SET AREA:



Before enabling motion detect, you will need to set the motion range by pressing UP/DOWN/RIGHT/LEFT button.
You will see a red point displayed on the screen.
Use the arrow buttons to move the red point.
Presses confirm, to make sure the position is correct.
If it requires further adjustments, use the arrow button to adjust the detection area. Once motion is detected in that area, the red square will flash and start to record until the motion object is out of sight.

Note: Remember to enable MOTION RECORD and check for the light symbol (for motion record) on the status window.

5.1.5.1.3 MOTION RESET AREA

The “Motion Reset Area” is used to reset the detection area to its original state.

5.1.5.1.4HIDDEN FRAME

“Hidden Frame” is used to hide information of motion detection from the screen. To enable this function, press the LEFT arrow button. The system’s default will then display all information of motion detection.

5.1.5.2 ALARM RECORD

ALARM RECORD: Press the confirm button to enter the sub-menu of alarm record.

Use UP/DOWN buttons for further setting options. Remember, to activate alarm record, press the LEFT button.

Note: Alarm in trigger record will not be activated if no Alarm input has been set.

5.1.5.2.1 ALARM IN

Select the alarm source from the alarm input at rear panel.

5.1.5.2 .2 TRIGGER REC DURATION

Use LEFT/RIGHT button to select the record duration time while the alarm was triggered. (Unit of time: Second.)

5.1.6 RECYCLE RECORD

Enabling the function to let desired cameras use recycled record. Recycle Recording will overwrite the earliest recorded data to prevent it from stopping during a recording, due to insufficient disk space.

Note: The system will stop recording when hard disk is full if the Recycle Record has not being enabled

5.1.7 APPLY TO ALL

APPLY TO ALL: Press the LEFT button to check to see if it has been enabled. Make sure all other cameras apply to the same settings. The “Apply to all” is valid only for Continuous Recording.

5.2 CAMERA SETTING

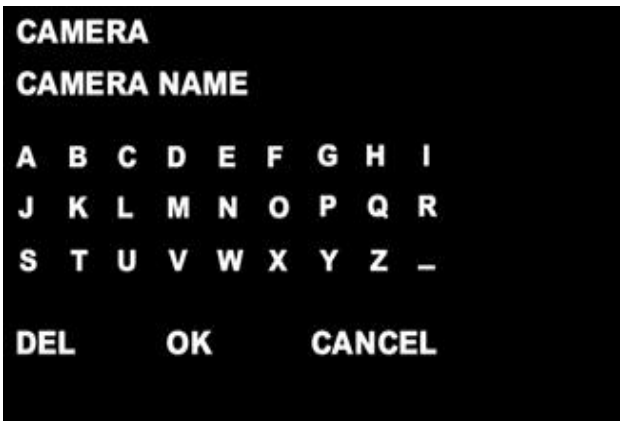
Highlight CAMERA SETTING and press the “Confirm” button or press the CAMERA button on your remote control. Either one, allows you to enter the setting screen as shown below:

5.2.1 CAMERA SELECT

Press Right/Left button to change the camera you want to select. The camera selected should be displayed at the bottom-right corner of your screen.

5.2.2 CAMERA NAME

SELECT one method to define your camera name with show keypad or keyboard:



1. Using the arrow buttons, define camera name. Press confirm, for every letter you key in. “DEL” means the last letter you want to delete. By hitting “CANCEL” the keypad will disappear. “OK” is to confirm the camera name entered is correct.
2. IF user have a keyboard, Using the function key “SHIFT K”, define camera name, only Press letter key or number key , then ENTER:OK ,ESC:CANCEL, DEL: DELETE.

5.2.3 HIDDEN CAMERA

Using LEFT/RIGHT button, select if you want to conceal the camera from being seen.

5.2.4 RECORDING FRAME RATE

Using LEFT/RIGHT button, allows you to adjust the recording frame rate. The value of NTSC is 1 to 30 and PAL is 1 to 25. The higher the value set, the faster the frame rate speed. However, keep in mind that the faster the frame rate, the more storage consumption that video data requires. The value of each model is ranging from 0.5 to 30 fps (VRD3004) and 15fps (VRD3008). The default value is set at the highest rate that also means real time recording.

5.2.5 RECORDING VIDEO QUALITY

Using the LEFT/RIGHT button, allows you to adjust the video quality. The level of quality you select will directly affect the compression ratio of a video data file. The higher the value is set, the better the quality is recorded. The system default is set as 40.

5.2.6 BRIGHTNESS

Using LEFT/RIGHT button allows you to adjust the brightness of a video data. The value is from 0 to 255. The higher the value set, the brighter the image. The system default is set at 128.

5.2.7 CONTRAST

By using LEFT/RIGHT button to adjust the contrast. The value is from 0 to 255. The higher the value selected, the sharper the camera image. The system default is 216.

5.2.8 SATURATION

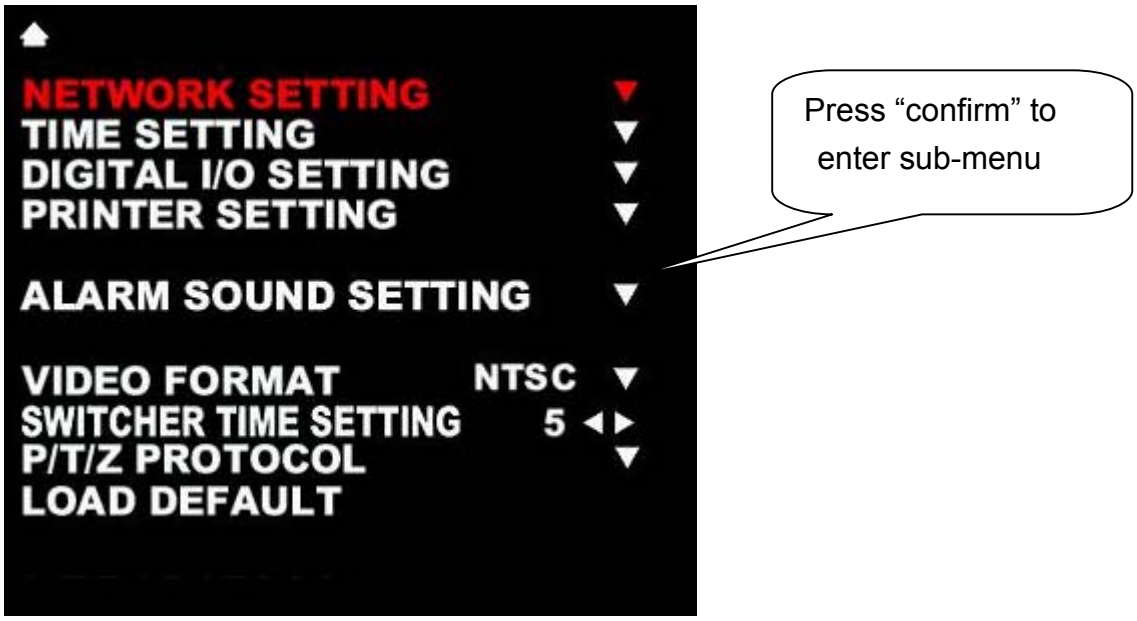
Using the LEFT/RIGHT button, you can adjust the level of saturation received. The value is from 0 to 255. The higher the value set, the thicker the camera colors. The system default is 180.

5.2.9 LOAD DEFAULT

Press the confirm button to load default settings.

5.3 SYSTEM SETTING

Press the MENU button from the panel or hit the SETTING button on your remote control. This allows you to view the system settings as shown below.



5.3.1 NETWORK SETTING

Press the “confirm” button to view network settings.

1. IP: While pressing confirm, a keypad will appears. Using the arrow buttons type in your IP address. Remember to press the confirm button for every character you key in. “DEL” means the last character you want to delete. “CANCEL” will get you out of that screen. “OK” is to confirm the IP address is correct and ready to be stored.

2. NETMASK: Press the confirm button to reveal the keypad. By using the arrow buttons, type your Subnet mask information.

3. GATEWAY: Press the confirm button to reveal the keypad. Use the arrow buttons to type in your IP address for Default Gateway. Note: Remember to shutdown and reboot your system if the IP address for Gateway is entered or updated on a regular basis.

5.3.2 TIME SETTING

Use the UP/DOWN buttons to select any settings you want to change.

The LEFT/RIGHT arrows will allow you to adjust information by the year, month, day, hour, minute and second. When ready select "OK" and press, "confirm" before exiting.

Note: Stop all kinds of recording function before you attempt to adjust Time Setting, If not, will show

Highlight note: "STOP RECORDING BEFORE ACCESSING THE TIME SETTING…"'

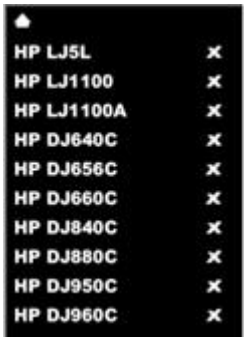
5.3.3 DIGITAL I/O SETTING

There are 8 digital I/O channels. Each channel can be defined as either Input or Output. Make your selection and hit confirm.
A sub-menu will appear as shown.

1. DIGITAL IN SELECT: Press the confirm button to switch 1-8 for digital in device selection.

2. DIGITAL IN: Press the confirm button to switch the connection type between NC and NO. LEFT/RIGHT button to select ☑ or ☒:
   ☑ Represents Digital I/O is enabled.
   ☒ Represents it is disabled.
   NC: Normal Closed NO: Normal Opened
3. DIGITAL OUT SELECT: Press the confirm button to switch 1-8 for digital out device selection.
4. DIGITAL OUT: Press the confirm button to switch to HI or LO. LEFT/RIGHT to select ☑ or ☒. ☑ Represents Digital Out is enabled. (HI: HIGH or LO: LOW)
5. TRIGGER DIGITAL OUT: Press the confirm button to select the corresponding digital out you want triggered. LEFT/RIGHT to select ☑ or ☒.
   ☑ Represents Digital I/O is enabled; ☒ represents it is disabled.
6. TRIGGER TIME LENGTH: Press the LEFT/RIGHT button to select the triggered time length in which you want to send HI/LO to your trigger digital out.

5.3.4 PRINTER SETTING

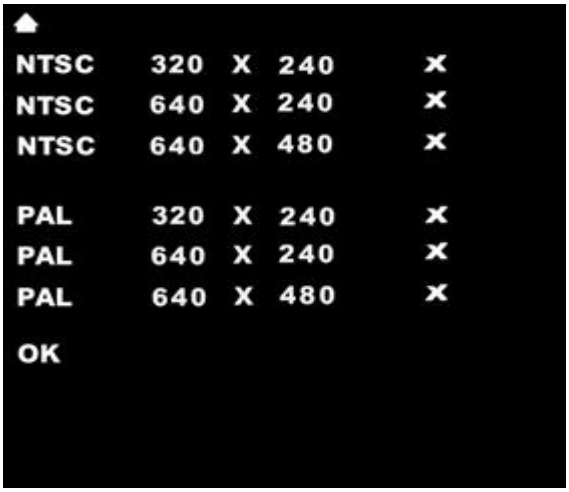


Select the printer setting and press confirm. A list of Printers will appear as shown. Use the LEFT button to enable which printer model you want to select. Presently, the system only supports 10 models from HP.
If necessary, we will consider adding more popular model in the future.
Notice: Once a printer has been selected, the printer function becomes available in Playback mode.

5.3.5 ALARM SETTING

Enter Alarm Settings to view page as shown. Currently, the only alarm sound is a constant beep. However, you may adjust the time interval of the sound by using the LEFT/RIGHT button.

5.3.6 VIDEO FORMAT



Enter the Video Format by pressing the Confirm button. When the settings page appears, select the video format you want and press LEFT to enable it. You must also press “OK” to reboot your system.

5.3.7 SWITCHER TIME SETTING

Press the LEFT/RIGHT button to adjust the time interval of the channel switcher. The time is from 1 to 60 seconds.

5.3.8 P/T/Z PROTOCOL

To access the P/T/Z, simply press the p/t/z button from the remote control.
The system supports protocol for PELCO and LILIN. Default is set to LILIN.

5.3.9 LOAD DEFAULT

Select Load Default and press confirm. All settings on this page will rest to the original factory default, after the system reboot. Note: The Video Format of the system default is NTSC; remember to change it if your system is PAL.

5.4 P/T/Z CONTROL

After installing the Speed Dome, select the camera by moving the green frame. Press the Main Menu button on front panel to enter the Main Menu Settings Window

.

5.4.1 MODE: Press LEFT/RIGHT key to select “AUTO” or MANUAL”. AUTO mode allows you to preset the point and focus.

5.4.2 PRESET POINT SEL: Press LEFT/RIGHT key to preset the expected point. A window shows live view to set correctly.

5.4.3 CAMERA SEL: Press LEFT/RIGHT key to select camera.

5.4.4 PAN LEFT/RIGHT: Control cameras panning across by pressing LEFT/RIGHT Key.

5.4.5 TILT UP/DOWN: Control cameras vertically up and down by pressing LEFT/RIGHT Key.

5.4.6 Zoom In/Out: This feature allows you to view different size of Video Images by simply pressing the LEFT/RIGHT key to zoom in or out.

5.4.7 FOCUS NEAR/FAR: Adjust Focus: To Adjust the Focus simply presses the LEFT/RIGHT Key. You can get a clearer picture by controlling the Focus option.

5.4.8 PAN SPEED: Control cameras panning speed across by pressing LEFT/RIGHT key. The speed is ranging from 1 to 8. The higher value is set, the faster the speed will be.

5.4.9 TILT SPEED: Control cameras vertically up and down by pressing UP/DOWN key. The speed is ranging from 1 to 8. The higher value is set, the faster the speed will be

5.4.10 STAY TIME: This feature allows you to adjust the stay time at each point. The value

is ranging from 1 to 60 seconds.

5.4.11 PRESET SPEED: Control the preset speed by entering a value. The value is set from 1 to 8. The higher value is set, the faster speed it moves.

5.4.12 SAVE ALL: This feature allows you to save the above setting.

The ✓ represent save settings. The ✗ represent quit the settings.

5.4.13 CLEAR ALL: This feature allows you to clear all settings

The ✓ represent save settings. The ✗ represent quit the settings.

5.5 PASSWORD SETTING

To enter this page, the system will prompt you to key in the correct password. The systems default is **123456**; however, you can change it later, only if you are authorized to do so.

Note: You can select the item you want protected by a password. Just press the LEFT button to activate (represented by ✓). Once a password protection is enabled, you will be prompted to enter the password every time you enter. Use arrow buttons to type in the password. Remember to hit confirm after each digit you key in. “DEL” means the last digit you want to deleted. “CANCEL” will get you out of that screen. “OK” is to confirm the password.

5.5.1 RECORD PASSWD

To enable record function to be password protected, press the LEFT button. This will prompt you to enter a password every time you attempt to enter.

✓ Represents record function is enabled. ✗ Represents record function is disabled.

5.5.2 SYSTEM PASSWD

To enable system setting to be password protected, press the LEFT button. This will prompt you to enter a password every time you attempt to enter.

✓ Represents record function is enabled. ✗ Represents record function is disabled.

5.5.3 SYSTEM PASSWD

To enable camera setting to be password protected, press the LEFT button. This will prompt you to enter a password every time you attempt to enter.

Represents record function is enabled. Represents record function is disabled.

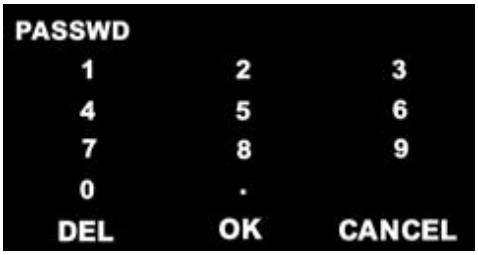
5.5.4 P/T/Z PASSWD

To enable P/T/Z setting to be password protected, press the LEFT button. This will prompt you to enter a password every time you attempt to enter.

Represents record function is enabled. Represents record function is disabled.

5.5.5 CHANGE PASSWD

This function allows you to change your password. There are two sets of passwords. “Admin” is applied for local VRD System as top-level password. “Guest” is for the authorized user who is allowed to playback or view life camera remotely through Intranet



To change your password, first you have to enter the correct old password. If the password is correct, you will be prompted to enter a new password. Use the arrow buttons to select digits from 0 to 9. Once your password has been selected, the last step is to reenter your new password to confirm.

Note: Do not forget your password. Control Center) will be hold without entering correct Password. This may cause unrecoverable risk.

5.6 ABOUT

Select ABOUT and press CONFIRM. A DirectSecu window will prompt with the name of this Application and its Version as shown below:

5.7 SHUT DOWN

Always remember to shut down your system properly before any power-offs or reboots. Prior to any shut down, you will be prompted to enter a password. The message “SHUT DOWN PLEASE” will remind you to power-off the system if password is correct. The system will run a function similar to Check Disk to recover any possible damage. If AC power lost accidentally, in this case, the Server will take a while to repair the file structure in the background when AC power is on.

6. Display Mode Selection

Press F4 on keyboard or Display button on remote controller to select display mode. There is three display modes: Multi screen/One Big With several small around/ Full Screen

6.1 SWITCHER TIME SETTING

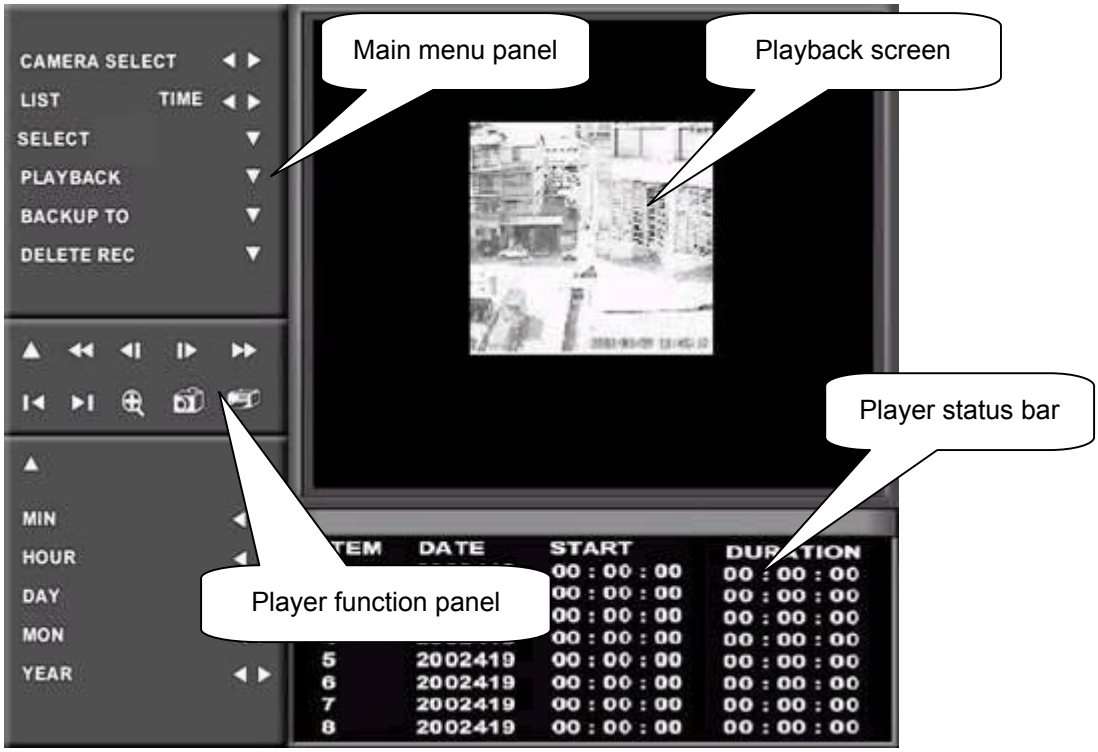
Please follow the steps below:

Enter into Main Menu ⟶ System Setting ⟶ Switcher Time Setting

Please refer to Chapter 5.3.7

7 PLAYBACK

Press F5 on keyboard or the PLAYBACK button on your Remote Controller. Either one will allow playback panel to display as shown below.



There are 5 major areas on the payback screen. The **main menu panel** is used to select the image for playback by camera, time and record. The **playback screen** shows the image selected. The **player function panel** used to control the playback of image data. User will get the playback status from the **player status bar**. The bottom right area used to show the listing of recorded image by time/record. On the bottom left area shows the selection of time and camera for playback.

7.1 MAIN MENU PANEL:

Use arrow buttons to select functions or press Confirm to enter the sub-menu.

7.1.1 CAMERA SELECT: Selecting which camera you wish to playback.

7.1.2 LIST: Press the LEFT/RIGHT button to search video duration by time, record or event. The time pane is active if “Time List” is selected and the Confirm button is pressed also on “TIME SELECT”. You may use the arrow buttons to adjust time by Min, Hour, Day, Week, and Year. Once you adjusted the time, press ▲ to go back to main menu panel to view playback. The record pane is active if

"Record List" is selected and the Confirm button is pressed also on "REC SELECT". You may use the UP/DOWN button to select record (highlighted in red). Once you have finished your selection, press Confirm to go back to the main menu pane for playback.

7.1.3 TIME / RECORD/EVENT SELECT:

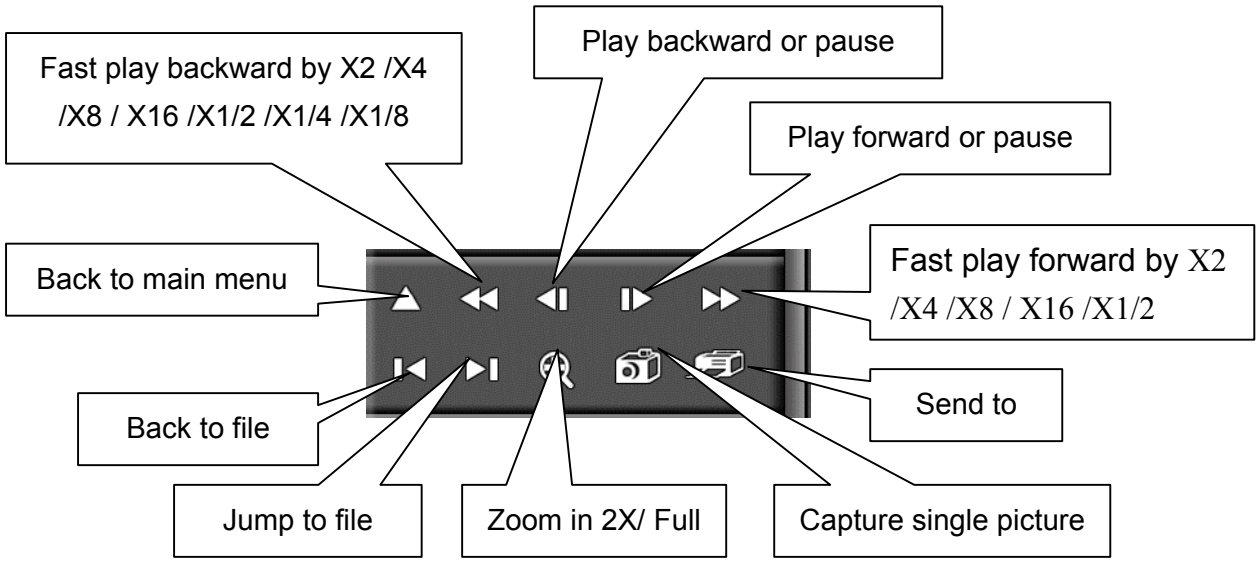
Once search type is selected, press Confirm to enter an active pane.

1. Select TIME: Time Pane is active. Adjust time by pressing buttons and press "Confirm" to view playback.
2. Select RECORD: The Player Status bar is active. Select RECORD file and press "Confirm" to view playback.
3. Select Event: The Player Status bar is active. Select the highlighted file and press "Confirm" to view playback

7.1.4 PLAYBACK

PLAYER FUNCTION PANEL:

Select "Player Function Panel" and press Confirm to playback control panel.


Fast play backward by X2 /X4 /X8 / X16 /X1/2 /X1/4 /X1/8
Play backward or pause
Play forward or pause
Back to main menu
Fast play forward by X2 /X4 /X8 / X16 /X1/2
Back to file
Send to
Jump to file
Zoom in 2X/ Full
Capture single picture

7.1.5 BACKUP TO:

Select the item to show backup page. You may select to just backup a frame or footage. Make sure the USB flash memory device is attached to the USB port.

1 Frame Backup: Hit to capture the video you wish to backup. Select Frame Backup and press "Confirm".

2 Footage Backup: Enter the start time and duration you wish to backup. Make sure you have enough capacity in your USB flash memory.

7.1.6 DELETE REC:

Select the video recordings you want to delete. Below are the procedures in deleting a record. First, you will be prompted for an authorized Password.

- Select list by Time or Record.
- Select “Time Select” or “REC Select” and press Confirm.
- Move to the record panel and press UP/DOWN to highlight the record you want to delete.

Figure 1

Figure 2

Figure 3

7.2 PLAYBACK SELECTION

7.2.1 PLAYBACK SEARCHED BY TIME

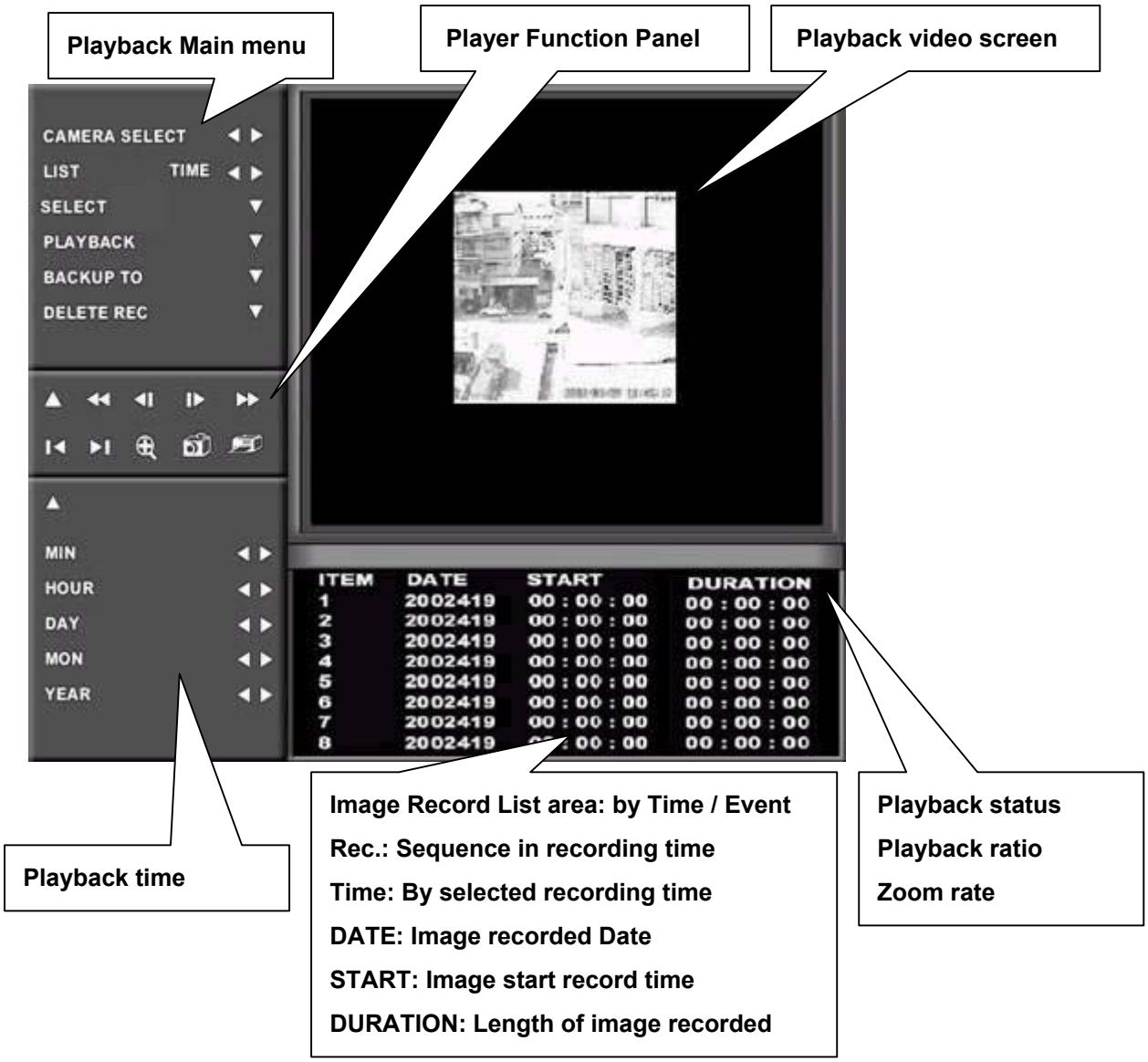
Step1. **Select Camera:** Select the Camera you want to playback

Step2. **List:** Change to **Time** by pressing LEFT/RIGHT button.

Step3. **Select:** Press the “Confirmation Button” on the front panel

Step4. **Time Setting Panel:** After setting the time you want it to playback, press” Confirm” button. (The playing file will highlight in green), there is two ways to change playing image file by **time**.

1. Stop playing by pressing button then repeats from step 1 to playback
2. Move cursor to on “Player Function Panel”. Press the confirm button to return to the Main Menu.


Playback Main menu
Player Function Panel
Playback video screen
CAMERA SELECT
LIST TIME
SELECT
PLAYBACK
BACKUP TO
DELETE REC
MIN
HOUR
DAY
MON
YEAR
ITEM DATE START DURATION
1 2002419 00 : 00 : 00 00 : 00 : 00
2 2002419 00 : 00 : 00 00 : 00 : 00
3 2002419 00 : 00 : 00 00 : 00 : 00
4 2002419 00 : 00 : 00 00 : 00 : 00
5 2002419 00 : 00 : 00 00 : 00 : 00
6 2002419 00 : 00 : 00 00 : 00 : 00
7 2002419 00 : 00 : 00 00 : 00 : 00
8 2002419 00 : 00 : 00 00 : 00 : 00
Playback time
Image Record List area: by Time / Event
Rec.: Sequence in recording time
Time: By selected recording time
DATE: Image recorded Date
START: Image start record time
DURATION: Length of image recorded
Playback status
Playback ratio
Zoom rate

7.2.2 PLAYBACK SEARCHED BY RECORD

Step1. [**Select Camera**] Select the Camera you want to playback

Step2. [**List**]

Change to **REC** by pressing the LEFT/RIGHT button.

Step3. [**Select**] Press the “Confirm” button on the front panel.

A red cursor will prompt the “File List Status”

Step4. [**File List Status**] Move the cursor to the file you want to playback, press the “Confirm Key” to start playing.

Note: The color of the playing file is highlighted in green.

There are two ways to change playing file by **Event.**

1. Stop playing by pressing the button: Repeat step 1 to playback.

2. Move cursor to the ▲ in “Player Function Panel”. Press confirm to return to the Main Menu

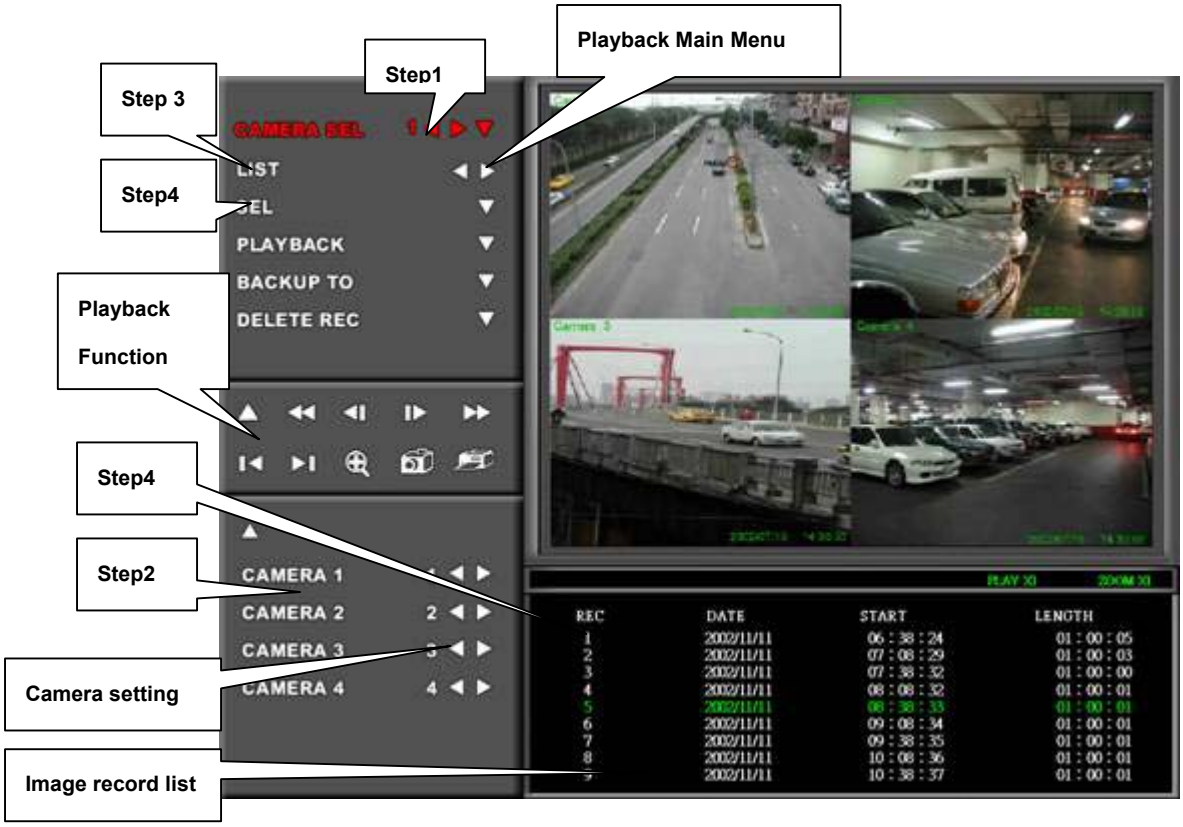
7.3 QUARRTERED SCREEN IN PLYABCK MODE

Step1. [**Select Camera 1**] Move to select camera (Note: Here you can select the first camera only).

Step2. [**Select Camera 2-4**] After pressing the confirm button, the Cursor will prompt to the settings window at the bottom right where you can see the first camera selected. (Select the Camera, and move cursor to a sign ▲ in the top of the setting windows, then press confirm).

Step3. [**List**] Select the REC Mode by using the LEFT/RIGHT button

Step4. [**Select File**] After pressing the confirm button, the cursor will prompt to the “Image List Panel” where you can select files to playback. The color of the selected file turns green in playback mode



8 REMOTE MONITOR

The VRD 3004/8 series allows you remote monitoring via Internet browser, regardless of where you are around the world.

8.1 BROWSER SETTING

1. Make sure the IP address has been correctly set up before remote monitoring occurs. Also, make sure all networking cables are well connected to the system.
2. Opening MS IE, entering your URL addresses followed by an additional word.
3. Click on the “Connect/Login” button, to log in to the system.

Note: We provide an IP address for our VRD system live demo screen: Call CDVItalia

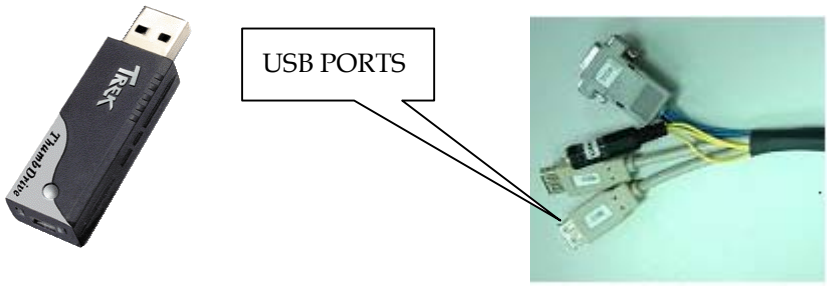
9 BACK UP

There are three ways to make backup with VRD. You can choose the most convenient way to retrieve □print and back up to your HDD for further usage.

9.1 SYSTEM BACKUP

9.1.1 CAPTURE SINGLE FRAME

9.1.1.1 Use USB Thumb Drive to backup a single picture. Plug Thumb Drive as shown left below into any of the USB port available in the rear of VRD 3004/8.



9.1.1.2 Press on front panel or playback button on controller to enter into the following Main Menu.

9.1.1.3 Playback the file you select and move cursor to where you can pause the playback by pressing confirm button.(✓)

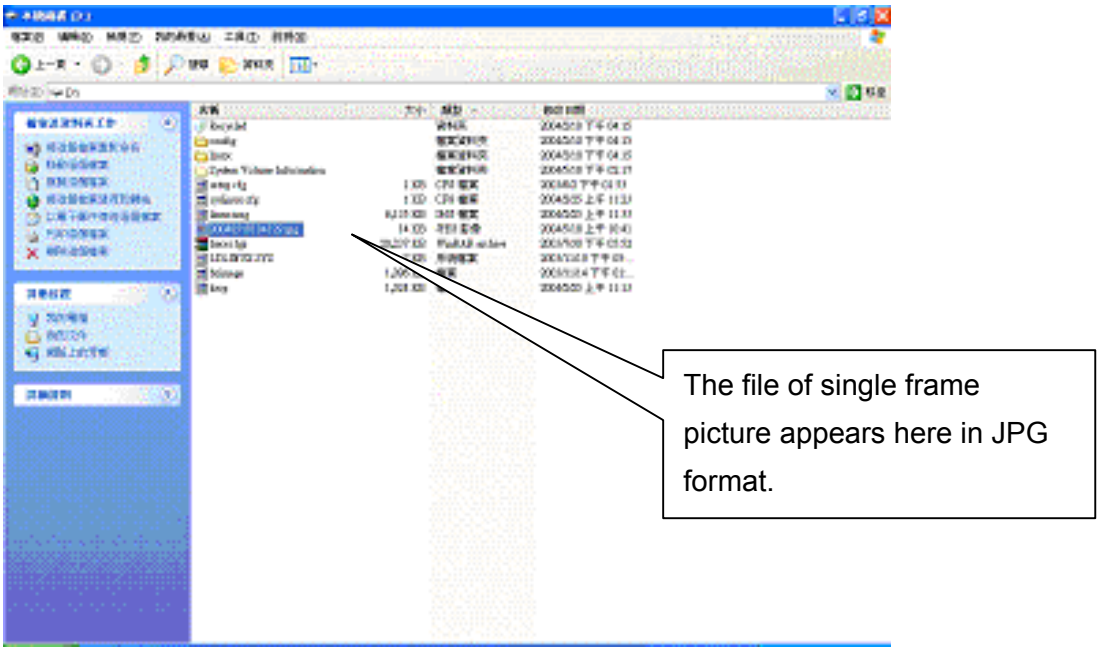
Note: Play in slow motion when you attempt to snap a frame. Move Cursor to Fast Forward and press confirm button (✓) continuously. The playback speed changes in every stroke. The lowest speed is set at 0.2x...

9.1.1.4 Move cursor to ready for snapping. Press confirm button while the right frame is being displayed. The single picture is temporary stored in HDD now.

9.1.1.5 Move cursor up to Back Up function in main menu. Press confirm button to enter submenu below. Press “confirm” to choose **Capture Single.** The selected frame will then backup to USB automatically.

9.1.2 Remove USB Drive and plug into your PC.

A “Flash disk” appears on File Management. Play and print the JPG file under Windows Operation System.

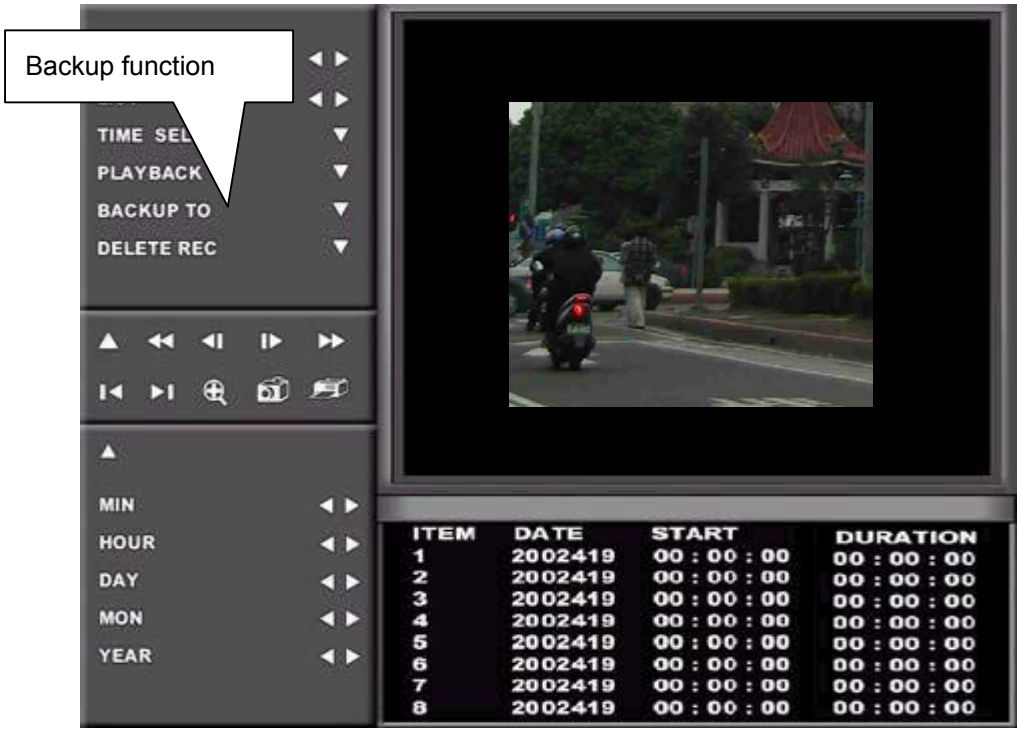


9.1.3 Mass storage Backup

9.1.3.1 follow the steps 9.1.1.1 through 9.1.1.4

9.1.3.2 select the file you want to backup and press confirm button.

9.1.3.3 move to **backup** by pressing UP/DOWN key and press confirm button.



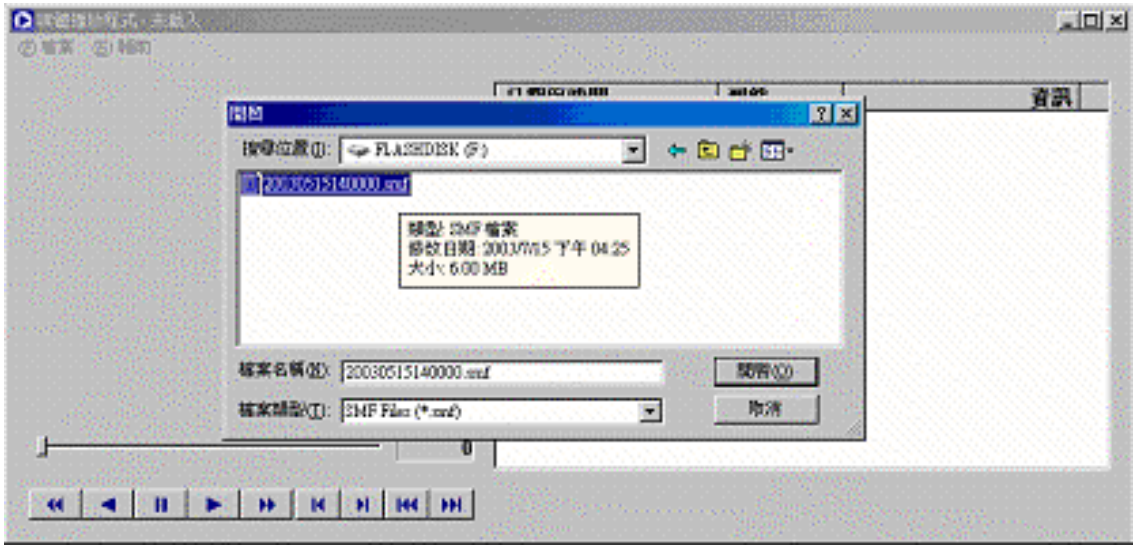
9.1.3.4 A selection panel pops up as below. Select Mass Storage and press confirm. Enter time of initial and duration of the footage. System will backup the file automatically to USB Drive after pressing confirm button.

Note: The preview picture is altered according to the time you change.

Remove USB Drive and plug into your PC. An additional disk name “Flash disk” appears on File Management List. To prevent from improper usage, the file is backed up in private format with attached file name *SMF, which can only be recognized by RCC provided by system original manufacturer..

9.2 Playback on Media Player:

Execute the Media Player Program (Included in RCC unit) and Press **File/Open** a searching window prompts you to enter the file name to start playing.



Note: Do not attempt to play by using Windows Media Player.
Windows’ cannot recognize the SMF file format.

10.0 FREQUENTLY ASKED QUESTIONS

Q1: Does VRD 3004/8 series support video format of NTSC or PAL in other countries?

A: Yes, you may adjust video format to fit in your country by selecting NTSC or PAL.

Q2: Why does VRD 3004/8 series get the wrong colors after a system update?

A: By factory default, the video format is set for NTSC. Because you have just updated system, therefore, you would need to adjust the video format to PAL in order to go with your TV system.

Q3: Does the VRD 3004/8 series support monitoring remotely?

A: Yes, you can use any PC, which is attached to NIC and IP address to monitor VRD 3004/8 remotely from everywhere and anywhere.

Q4: What will happen when AC power lost accidentally?

A: Yes, the system will try to repair possible damages in the background before the application is loaded. In this case, it should take 5 ~ 10 minutes to load the VRD application.

Q5. How many cameras does VRD 3004/8 series support?

A: There are 2 models of VRD 3004/8 series, they are VRD3004 / VRD3008. They support 4 and 8 cameras.

Q6: What is the situation when VRD 3004/8 hangs?

A: Because the hardware of VRD 3004/8 series is industrial class and Linux system embedded, you won't encounter system hang like Windows base from Microsoft. If you have any doubts about the systems response, you may check HDD LED from the panel of VRD 3004/8. If it flashes every 3 or 4 seconds. The flash means it is recording video data.

Q7: How is the comparison chart when VRD 3004/8 is recording?

A: The recording frame rate and video quality are major factors and it will affect the file size and recording time. Please refer to the below chart for details.

Frame Rate Total	30 fps x 1 day	120 fps x 1 day
Low Quality	6.24GB	25GB
Mid Quality	9.6GB	38.4GB
High Quality	14.4GB	57.6GB

Q8: Why I cannot adjust time setting?

A: Stop recording of any mode before doing time setting.